# Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

In the Matter of	)	
	)	
Petition for Rulemaking to Amend Part	)	
90.103(b) to Add the 78-81 GHz Band to the	)	RM - 11612
Table Specifying Frequencies Available for	)	
Assignment to Stations in the Radiolocation	)	
Service	)	

#### REPLY COMMENTS OF TREX ENTERPRISES CORPORATION

Trex Enterprises Corporation (Trex) respectfully submits these reply comments in support of its Petition for Rulemaking asking the Commission to amend Section 90.103(b) of the Rules to add the 78-81 GHz band to the table of frequencies available for assignment to stations operating in the Radiolocation Service. The rule change is needed to permit certification under Part 2 of the Rules and to enable entities to obtain licenses to operate new radar technology to detect foreign object debris (FOD) on runways and other airport surfaces.

Trex is pleased that all parties commenting in the proceeding support the Petition.

The comments are discussed below.

## I. Edwin E. Herricks Comments

Professor Herricks is presently leading, as performing partner for the FAA, a performance assessment of FOD detection technologies at several airports, including Providence T.F. Green International Airport, Boston International Airport, O'Hare International Airport, Honolulu International Airport, and the Carlsbad/Palomar Airport. He strongly supports Trex's Petition because of the need for advanced detection technologies to address a critical international problem. Professor Herricks believes it is imperative that the proposed changes are adopted so that new radar technologies can be used to detect FOD in the airport environment in

the 78-81 GHz band. He also notes that adoption of Trex's proposed changes will result in the availability of new technology to address critical airport safety issues at a time when the FAA is placing new emphasis on FOD management. As Trex mentioned in the Petition, the FAA intends to make federal funding available to airports to purchase FOD detection equipment systems, including the radiolocation equipment developed by Trex. But such equipment operating in the 78-81 GHz band cannot be certified under Part 2 of the Rules or licensed for operation until Section 90.103(b) is modified to permit operation.

## **II.** Chicago Department of Aviation Comments

Al Perez, Managing Deputy Commissioner of the Chicago Department of Aviation, notes that the presence of FOD at airports is a critical issue. He emphasized that the only way to combat the significant losses caused by FOD is to completely eliminate it from the airport environment. Mr. Perez notes that the single most important key to removing FOD is detection and that millimeter wave radar detection technology operating in the 78-81 GHz band has been developed precisely for that purpose. But until the FCC amends its rules to permit operation in the 78-81 GHz band, as Trex is requesting, such technologies cannot be used.

### **III.** National Radio Astronomy Observatory Comments

The National Radio Astronomy Observatory (NRAO) agrees with Trex that coordination of radiolocation operations at 78-81 GHz at airports through the National Science Foundation (NSF) should be an effective means of protecting radio astronomy operations in the shared band. NRAO states that certain of the radio astronomy sites identified by Trex in the Petition do not observe (or, are not capable of observing) in the 78-81 GHz band and therefore should not be included in the proposed amendments to the rules as sites requiring coordination. Similarly, NRAO notes that there are certain radio astronomy operations that were not identified by Trex that should be included in the proposed rules as sites requiring coordination.

Trex does not oppose any of the changes proposed by NRAO in their comments.

To accommodate NRAO's changes, Trex offers Table 1 below as a substitute for Table 1 appearing on pages 9 and 10 of the Petition.

Table 1 – Applicable Radio Astronomy Service (RAS) Facilities and Associated Coordination Distances

Observatory	Latitude (North)	Longitude (West)	Radius (km) of Coordination Zone
Green Bank, WV	38° 25' 59"	79° 50' 23"	160
Very Long Baseline Array (VLBA) stations:			
Kitt Peak, AZ	31° 57' 12"	111° 36' 53"	50
CARMA Cedar Flat, CA	37° 16' 50"	118° 08' 30"	50
Owens Valley, CA	37° 13' 54"	118° 16' 37"	160
Mauna Kea, HI	19° 48' 05"	155° 27' 20"	50
Brewster, WA	48° 07' 52"	119° 41' 00"	
Kitt Peak, AZ	31° 57' 23"	111° 36' 45"	
Pie Town, NM	34° 18' 04"	108° 07' 09"	
Los Alamos, NM	35° 46' 30"	106° 14' 44"	
Fort Davis, TX	30° 38' 06"	103° 56' 41"	
North Liberty, IA	41° 46' 17"	91° 34' 27"	

<sup>\*</sup> Owens Valley, CA operates both a VLBA station and single-dish telescopes.

Given the absence of any opposition and the urgent need for making Trex's FOD radar detection technology available for use at the nation's airports, Trex respectfully requests

the Commission to move swiftly toward adopting the rule changes proposed in Trex's Petition.

Respectfully submitted,

Trex Enterprises Corporation

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